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Coping Strategies And Health Locus Of Control In Women With Chronic Hypertension

Mary Ledford
Mississippi University for Women

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Mary Ledford

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Coping Strategies and Health Locus of Control

in Women with Chronic Hypertension

by

Mary Ledford

Mary Patricia Curtis
Associate Professor of Nursing
Director of Thesis

Virginia Lee Cobb, DSN, RNC
Associate Professor of Nursing
Member of Committee

C Shands
Associate Professor of Nursing
Member of Committee

Thomas C. Rutledge
Director of the Graduate School

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Abstract

The purpose of this descriptive correlational study was to determine the coping strategies most often used, their perceived effectiveness, and their correlation to health locus of control in women with chronic hypertension. The nonrandomized sample (N = 35) were women ages 35-65 years from a rural northeast Mississippi community. The subjects were primarily middle-aged, white, and of middle socioeconomic status. The theoretical framework for this study was Roy's Adaptation Model. Data collection were accomplished with the Personal Information Checklist, the Jalowiec Coping Scale, and the Health Locus of Control Scale. The data were analyzed using descriptive statistics and Pearson product moment correlational analysis. Findings indicated that all coping strategies were used and perceived at varying levels, indicating coping strategies changed with stressor levels. Correlations emerged between coping strategies used and perceived effective and health locus of control. Conclusions were that coping strategies are multifaceted and impacted by both internal and external factors. Implications are indicated for further studies by replication with larger population, with other diseases, and implementation of a longitudinal study.

Table of Contents

List of Tables

Chapter I

The Research Problem

Chronic illness accounts for the greater part of the health care provided in industrialized countries (Black, Dorman, & Allergrante, 1986; Weiner et al., 1971). One such chronic illness is hypertension which affects approximately 35 million people. Hypertension is a health care problem with tremendous physical, emotional, and financial costs to the American people (Knowles, 1977; United States National High Blood Pressure Coordinating Committee, 1978).

Due to the prevalence, associated health care costs, and debilitating effects on human lives, hypertension is a health issue of much interest to researchers. One focus of study which has not been addressed is adaptation outcomes and the kind of coping strategies employed in the process of adaptation by people with hypertension (Lazarus, DeLongis, Folkman, & Gruen, 1985).

Some of the problems identified with past studies have been the grouping of several chronic illnesses together in the study of the adaptation process. Examining the commonalities of adaptation to chronic illness in this manner presents particular problems due to the differences

in etiology, symptoms, and treatment specific to each illness (Pollock, 1986).

Another identified problem is that studies have been concerned with the effectiveness of types of coping strategies derived from criteria established by the researcher and not as perceived by the subject. Escalating demand for responsive health care requires that future health care planning include the perspective of the patient (Mistraz, 1984; Strauss, Fagerhaugh, Suczek, & Weiner, 1981).

Further, attention has been directed to attributional theory (Weiner et al., 1971) in that subjects identify their success or failure in adaptation to their illness as being either internal or external to the person (their locus) and either controllable or uncontrollable (their control). However, no study was found that correlated coping strategies, their use and effectiveness, and locus of control in persons with chronic hypertension.

As types of coping strategies and health locus of control are considered predictors of adaptation to chronic illness, an understanding of the relationship between use of these entities and their perceived effectiveness would provide information that would help health care practitioners evaluate the adaptation process. Therefore, the purpose of this study was to identify coping strategies

used and their perceived effectiveness as related to health locus of control in persons with hypertension.

Introduction to the Problem

Adaptation to chronic illness is a complex process involving many factors that influence response and subsequent level of coping (Pollock, 1989). Lazarus and Folkman (1989) described coping as a constant change in cognitive and behavioral efforts of a person to manage specific external and/or internal demands that are interpreted as taxing or exceeding their resources. Awareness of which factors are more important in predicting control and adjustment outcomes in hypertensive patients provides the basis for identification of those factors amenable to intervention from health care practitioners (Powers & Jalowiec, 1987).

In studies that compared stressful life events (SLE) and coping strategies, conclusions were that there are significant differences in the number and types of SLEs reported by patients with acute and chronic illnesses (Jalowiec & Powers, 1980). Persons with chronic illnesses tended to use more internal coping strategies and persons with acute illness tended to use more external coping strategies. Also, persons, with chronic illness such as hypertension experienced significantly more health-related SLEs compared to more personal and social SLEs experienced by the acutely ill person (Powers & Jalowiec, 1987). An

understanding of the relationship between coping strategies and long-term adaptation outcomes has not been evaluated. Also, an inter-individual approach in which comparison between people with the same long-term illness has not been used.

Other studies have addressed the attributional theory in relation to coping. The attributional model (Weiner et al., 1971) generated many studies on attribution for success and failure in coping with stressful life events. This theory was the origin of the locus of control model. Causal attribution was characterized as stable or unstable (stability), internal or external to the person (locus), and controllable or uncontrollable (control). Individuals were found to attribute success as internal to the person and failure as external to the person (Lowery & Jacobsen, 1985). In a study of paralyzed accident victims by Bulman and Wortman (1978), persons who were internally oriented were found to adapt more effectively than those who were externally controlled. The importance that locus of control plays in adaptation was addressed by Powers and Jalowiec (1987). The well-adjusted person with hypertension thought that their health was under their own control. These studies support similar results found in other studies concerning locus of control in academic achievement situations (Nowicki & Strickland, 1983).

Coping strategies and related outcomes, either adaptation or maladaptation, have been examined from many approaches. Coping was found to be strongly related to cognitive appraisal; the forms of coping that are used vary depending on what is at stake and the options of coping (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Substantial variation in coping has been shown across situations for a given individual (Folkman & Lazarus, 1986; Lazarus, Gruen, & DeLongis, 1986). Coping is best not conceptualized as a stable property of person but as a process that depends on characteristics of both the person and the situation (Dunkel-Schelter, Folkman, & Lazarus, 1987).

Locus of control has been shown to be characteristic of the person and coping strategies have been shown to vary with the situation. These facts seem to indicate a correlation between locus of control and coping strategies. However, no formal studies have verified the existence of this relationship. If a relationship exists between these two factors, more information is needed to assist the health care practitioner in understanding the differences in how and why people adapt to chronic illness.

Studies on coping strategies and the adaptation process often have grouped more than one illness together and have not considered it as a variable. In a study to identify factors that promote adaptation (Pollock, 1985) grouped

diabetes mellitus, essential hypertension, and rheumatoid arthritis patients. All factors were not supported in each illness revealing the difficulty in grouping several diseases together. Pollock (1985) found that this problem surfaced due to the differences in etiology, symptoms, and treatments specific to each illness. Therefore, this current study of chronic illness focused only on chronic hypertension.

Conceptual Framework

Various models of adaptation have been described in nursing and related literature. This study is based on the theoretical framework of Roy's (1984) Adaptation Model. The adaptation model is especially appropriate to the study of long-term health problems because chronic illness, by its nature, requires adaptation. Adaptation means "that the human system has the capacity to adjust effectively to changes in the environment" (Andrews & Roy, 1986, p. 307). Adaptive responses are described as "those that promote the integrity of the person in terms of the goals of the human system: survival, growth, reproduction and mastery" and ineffective responses are "responses that do not contribute to adaptive goals, that is, survival, growth, reproduction, and mastery" (Roy, 1984, p. 35). Roy (cited in Marriner, 1986) described a person's adaptation level as "a constantly changing point, made up of focal, contextual, and residual stimuli (inputs into the adaptive system) which represent

the person's own standard of which one can respond with ordinary adaptive responses" (p. 299). Adaptive and ineffective responses are considered outputs of the adaptive system.

Person is described by Roy (1984) as an adaptive system including an individual, a group, or a community. For this study, person is the woman with chronic hypertension. The person is in constant interaction with the environment. Environment is defined by Roy as "all conditions, circumstances and influences surrounding and affecting the development and behavior of persons" (p. 39). The environmental aspects in this study are those conditions or influences that promote adaptive or maladaptive behavior in the woman with chronic hypertension. Environment is viewed by Roy as constantly changing and is divided into internal and external components which serve as inputs into the adaptive system.

Roy's Adaption Model (Andrews & Roy, 1986) identified two major internal control processes, the regulator and the cognator. These subsystems are viewed as innate or acquired coping mechanisms used by the adaptive system to respond to changing internal and external stimuli. These two subsystems act to maintain control in four adaptive modes: (a) physiological (basic body needs), (b) self-concept (beliefs and feelings), (c) role function (social duties), and (d) interdependence (relationships with others).

Through these internal processes the adaptation process takes place. Tiedeman (1989) stated, "the process of perception is found in both the regulator and cognator and is viewed as the process linking these two subsystems" (p. 190). Input into the adaptive system is translated according to perception of how the four adaptive modes will be impacted. Understanding the chronic hypertensive's perception of coping styles that are most effective in supporting these four concepts provides valuable information to promote maximum adaptation to the health care practitioner.

In Roy's Adaptation Model nursing is viewed as promotion of the adaptation process. With the assistance of nursing, energy is freed from ineffective coping through removing, increasing, decreasing, or altering stimuli to promote behavior that becomes adaptive and fosters health.

Significance of the Study

From research substantial contributions have been made toward understanding the responses to chronic illness in clinical practice. This knowledge is in the early stages of development. As chronic illness has become the leading health problem in the United States, the need has grown for improvement in ways to meet the needs of the chronically ill client. To promote adaptation to chronic illness it is important to identify those strategies that reinforce the client's ability to maintain optimal level of functioning.

Studies have identified important psychologic and sociologic variables that need to be considered when assessing adaptation to chronic illness. Although some of the variables may not be amenable to change, knowledge of their presence and effect is an important consideration in planning nursing intervention.

This study sought to identify coping strategies most often used by women with chronic hypertension and their perceived effectiveness of these coping strategies related to their health locus of control. The results of this study add to the knowledge base of coping, adaptation, and control in persons with chronic illness. Health care practitioners can use this information in planning long-term care for clients with chronic illness. These findings also provide a perspective needed for the education of students and may guide nursing administrators to develop standards of care for the person with chronic hypertension.

Assumptions

This study was based on the following assumptions:

1. Individuals use coping strategies to adapt to chronic illness.

2. Individuals perceive some coping strategies as more effective than others.

3. Locus of control influences the strategies persons use in the adaptation process.

Statement of the Problem

This study addressed the question: What are the coping strategies used and perceived as effective in relation to health locus of control in women with chronic hypertension?

Research Questions

Three research questions guided this study:

1. What are the coping strategies used by women with chronic hypertension?

2. What is the perceived effectiveness of coping strategies in women with chronic hypertension?

3. What is the correlation between coping strategies, use, and effectiveness and health locus of control in women with chronic hypertension?

Definition of Terms

For the purpose of this study, the following theoretical and operational definitions were used:

Coping strategies were identified by Moos and Tsu (1977) "as skills commonly employed to deal with the adaptive tasks of illness" (p. 12). In this study coping strategies were operationalized by the scores on the Jalowiec Coping Scale.

Use is the employment of coping strategies to manage stress of chronic hypertension as operationalized by the mean use score on the use subscale of the Jalowiec Coping Scale.

Effectiveness is the benefit perceived by the subjects from the use of a coping strategy to manage the stress of chronic hypertension. Effectiveness is operationalized by the mean effectiveness scores on the effectiveness subscale of the Jalowiec Coping Scale.

Health Locus of Control was identified by Wallston, Wallston, and DeVellis (1978) as control of one's health as resting in self or powerful others and can be related to types of coping skills. Health locus of control was operationalized in this study as the answers to the Health Locus of Control Scale and its three subscales, internal locus of control, chance locus of control, and powerful others locus of control.

Women with chronic hypertension were females between the ages of 35 to 65 years diagnosed as having hypertension for at least one year and taking at least one drug for control of hypertension.

Summary

Chapter I presented an introduction to the problem of chronic illness, especially hypertension, the role of coping strategies, and health locus of control. The goal of this study was to examine the coping strategies and health locus of control in women with chronic hypertension. The theoretical framework, Roy's Adaptation Theory, assumptions, and definitions of terms used in this study were described.

In Chapter II, a critical review of research literature is presented to reveal what has been done in developing existing theory and clinical knowledge related to this topic of study. The areas that need further study also are identified. In Chapter III the design of the study is identified; the variables are operationalized; the population, sample, and methodology are described; and the instrumentation is presented. Chapter IV presents the results of data analysis. Chapter V presents the findings, discussions, conclusions, implications, and recommendations.

Chapter II

Review of the Literature

In this chapter a review of existing studies about coping strategies and health locus of control in adaptation to chronic illness are presented. A review of the synthesis of coping by important theorists also is reviewed, and areas for additional research are identified.

Coping Strategies

Interest in the concept of coping and types of coping process has been evident by the numerous studies found in the literature. Folkman, Lazarus, Gruen, and DeLongis (1986) studied the relationships between personality factors, appraisal levels, coping methods, health status, and psychological symptoms in 150 healthy adults. Subjects were interviewed in their homes once a month for 6 months using the Stress Interview, a four-point Likert scale developed for this study by the researchers. Other tools used were structured interview questions developed for the study and a Locus of Control Scale adapted from the Pearlin Locus of Control Scale.

Coping processes were assessed across five stressful situations experienced in the day-to-day lives of the

subjects. Multiple regression analysis revealed there was no significant amount of variance in somatic health status and type of coping mechanism used (r = .26). The more the subjects had at stake, the greater the number of coping strategies used, but the poorer the health status. However, the analysis did explain a significant amount of variance in personality factors that influenced coping processes, psychological symptoms, and mastery and trust (r = .74). The more mastery the subjects perceived they possessed, the better their health status.

Conclusions were that on the whole the processes of coping tended to be more variable than stable as subjects were found to use different coping strategies for different types of stressful events. A wider range than five stressful events was recommended for future studies. These findings cannot be generalized to the chronically ill person as they were derived from healthy adults managing the routine stress of daily living and not the multiple stressors of chronic, long-term illness.

In a synthesis of coping processes, Lazarus (1966) postulated that the extent to which a person feels threatened and the strategy used in coping with the threat are an evaluation of effectiveness of coping; i.e., the degree of threat influences the extent to which available resources can be utilized for coping. Although coping resources are available, there may be many constraints (fear

or anxiety) that inhibit their effective use. Burckhardt (1987) described coping in persons with chronic illness as an ongoing process that is developmental. Individuals are often in conditions of potential threat or challenge that tax their ability to adapt effectively. Most chronically ill persons at some time face events in their illness for which old methods of coping are inadequate and must develop new coping strategies for effective adaptation.

In other studies personality characteristics were related to the ability to cope effectively. Kobasa (1982) studied the effects of commitment and coping in stress resistance in 157 lawyers. The subjects completed a stress instrument developed by the researcher that was a composite of instruments developed by Holmes and Rahe (1967) and Rahe, Lundberg, Theorell, and Bennett (1971) on stress resistance and reactions to stressful life events. The questionnaire was mailed to 50% of the registrants at a Canadian Bar Association Conference. Data analysis by Pearson product moment correlation procedure revealed a significant amount of stressful life events. However, no significant correlations were found between these events and illness in stress resistant individuals. These subjects were shown to have a hardiness characteristic, a specific set of attitudes toward challenge, commitment, and control that enabled them to react to stress more effectively. A recommendation from this study was a closer evaluation of individual differences

associated with personality and coping and the impact of social support systems. One purpose of the present study was to identify those coping strategies that were classified as effective and were controllable.

In a study by Kobasa, Maddi, and Courington (1981) personality and constitution as mediators in the stress-illness relationship were examined. The Schedule of Life Events Scale (Holmes & Rahe, 1967) was mailed to upper-level management staff of a large utility company and 81% (N = 259) usable response was realized. Results supported the assumption that the characteristic of hardiness decreases the effect of stressful life events and promotes more effective coping. The significant effect of personality-based hardiness in this study validated the view that disposition toward commitment, control, and challenge function as a resistance resource. Recommendations for future studies were to base studies on recent, current, or chronic stressful events as acute or time limited stressful events have a short-lived factor. The present study examined the perceived effectiveness of specific coping styles in chronic hypertension.

Health Locus of Control

While personality variables often have been found to play an important role in adaptation to illness, interest has developed among theorists regarding the possible role played by the client's "locus of control" (Wallston,

Wallston, Kaplan, & Maides, 1976; Weiner, 1974; Weiner, 1977). The internal-external locus of control construct was based on social learning theory (Rotter, 1954). Those who perceive their behaviors as the primary factor in coping were defined as internal controllers. Those who perceive little, if any, cause and effect between their behaviors and coping were defined as external controllers.

The construct of control referred to the degree to which a person believed that personal action influenced outcomes in life. Rotter and Phares (1972) stated that internal controllers believed that most of what happens to them is under their own control. External controllers believed more in the role of luck, chance, fate, or other influences outside themselves; their destinies were in the hands of powerful others. As a generalized expectancy in social learning theory, locus of control was a relatively stable personality factor developed over time and acquired through a series of many social learning experiences. Weiner (1974) in describing this concept suggested that self-esteem is related to perceived locus of control and individuals attribute success internally and failure externally.

The Health Locus of Control Scale derived from Rotter's theory by Wallston et al. (1976) is an area-specific measure of expectancies regarding locus of control developed for prediction of health-related behavior. Clients with

external health loci of control expected clinicians to provide cures while those with internal orientations expected to change their own problem behaviors with support from health care providers (Connor et al., 1989).

Powers and Jalowiec (1987) studied chronic hypertensive subjects (N = 450) to identify psychosocial and physiological predictors of adaptation to chronic illness. Structured interview and formal instruments, the Health Locus of Control Scale, and the Jalowiec Coping Scale were used for data collection. Subjects were randomly selected from six outpatient clinics in urban and suburban Chicago areas.

Stepwise discriminant analysis was used to determine which variables maximally discriminated between subjects with better or worse adaptation to chronic illness. A large number of significant predictors of adaptation to chronic illness were identified. The more salient results revealed that subjects who rated their stress level lower and their quality of life higher believed their health was under their own control and used problem-solving strategies to cope with stress.

Often practitioners fail to take into account the breadth and the diversity of the influences that have an impact on the client's response to illness. This current study extended the scrutiny of the adaptation process to include the use of diverse coping strategies and the

individual's perceived effectiveness of those coping strategies for the adaptation process. These outcomes were correlated to the health locus of control.

Lowery and Jacobsen (1985) studied health locus of control in 296 subjects with diabetes, hypertension, and arthritis. The sample for this study was all available arthritic, diabetic, and hypertensive patients attending a large urban teaching hospital during the 9-month data collection period. Instrumentation included structured interview surveys based on questions adapted from Weiner's (1979) locus of control framework. Data subjected to chi-square analysis determined that patients attributed their success in coping internally and their failure in coping externally in responses to an adapted version of the Health Locus of Control Scale. Recommendations from this study concerned the need for further research in the area of locus of control to validate these findings. The present study sought to add to these findings.

In a study of the relationship of health locus of control to lifestyle change programs, Jordan-Marsh and Neutra (1985) examined subjects' responses to an intervention program. The program was designed to teach personal health responsibility in a setting where progress was monitored by health care professionals. The sample consisted of 339 individuals who were first time participants in 16 teaching sessions over a 2-year period.

Subjects were included if two measures of a select physical parameter were recorded and the Health Locus of Control Scale was completed. Age ranges of subjects were between 50 and 70 years, with 44% males and 56% females. The most common diagnoses of the participants were cardiovascular 46%; diabetes, thyroid, and arthritis each accounting for 11% of diagnoses. Data collection was accomplished by completion of the Health Locus of Control Scale on admission and repeated at discharge. Physical parameters were measured on admission, at discharge, and at a 6-month follow-up visit. Mean composite scores on admission and discharge supported the hypothesis that scores would decrease with participation in the program, reflecting a trend toward internality or internal control.

Although populations who are older or who have a chronic illness are more likely to be more external than younger healthy populations, the group studied at the center was more internal than the normative groups described by Wallston et al. (1976). The usefulness of analyzing health locus of control data in terms of factors that impact adaptation to chronic illness was confirmed in this study.

Increasingly researchers have recognized that many factors accounting for adaptation to chronic illness are under personal control and not amenable to traditional health care regimens (Konfer, 1980). More recently, health care practitioners are interested in combining understanding

of psychological characteristics of individuals with medical knowledge to improve health (Jordan-Marsh & Neutra, 1985). This study added to the knowledge base by exploring the correlation between coping strategy choices and health locus of control in the adaptation of the chronic hypertensive.

Summary

Numerous coping strategies have been identified (Folkman, Lazarus, Gruen, & DeLongis, 1986; Kobasa, 1982; Kobasa et al., 1981). Attribution theory or locus of control has been found to be an element that influences the client's perception of coping effectiveness (Jalowiec, 1987; Lowery & Jacobsen, 1985; Wallston et al., 1976; Weiner, 1977). Despite these investigations of locus of control and coping strategies, no studies have been found that correlated those coping strategies used and perceived as effective by the client to their health locus of control. This study sought to identify those coping strategies that the woman with chronic hypertension used and perceived as most effective and correlate them with locus of control. Although these variables may not be amenable to change, knowledge of their presence and relationship is an important consideration in planning health care intervention. An understanding of which variable may increase effectiveness in coping can be used in promotion of adaptation to chronic illness. As Powers and Jalowiec (1987) suggested, knowledge of effective coping processes will allow health care

practitioners to tailor approaches to care for the most effective intervention, teaching, and modification of health care regimens.

Chapter III

The Research Design

The purpose of this study was to describe coping strategies used and their perceived effectiveness as related to health locus of control in women who have hypertension. Two research questions guided this study:

1. What are the coping strategies used by women with chronic hypertension?

2. What is the perceived effectiveness of coping strategies in women with chronic hypertension?

3. What is the correlation between coping strategies, use, and effectiveness and health locus of control in women with chronic hypertension?

This chapter provides details of the design, procedures, instrumentation, and statistical analysis used in this study.

Design of Study

A descriptive correlational design was employed to examine the relationship between coping strategies used and perceived effectiveness of these coping strategies as related to health locus of control. A descriptive correlational design defines relationships between

variables. Phenomena are described as they exist without assumption of causality (Wilson, 1989).

The variables examined in this study were: (a) the coping strategies most frequently used by hypertensive women, (b) the perceived effectiveness of those coping strategies used, and (c) the relationship of coping strategies to health locus of control.

Setting, Population, and Sample

The setting for this study was a rural community of approximately 35,000 people located in Northeast Mississippi. The primary income was from farming and small industry. All socioeconomic levels were represented with more residents in the middle and low range categories (Corinth Chamber of Commerce, 1988). Although no exact figures were available for the number of residents diagnosed as hypertensive, statistics revealed that hypertension accounted for 8% of the deaths in the county in which this community was located (Mississippi State Department of Health, 1988). The site for data collection included physicians and a home health agency.

The population for this study included women between 35 and 65 years of age who had been diagnosed as having hypertension for at least one year, who were taking at least one drug prescribed for hypertension control, and who were clients of either of the two physicians. Participants were

required to demonstrate the ability to read, write, hear, and speak the English language.

A convenience sample consisted of 20 subjects who met the criteria for inclusion in the study, were present, and were willing to participate during the data collection period. Measures to protect the rights of the subjects in this study included approval of the study by Mississippi University for Women's Committee on Use of Human Subjects in Experimentation (see Appendix A). All prospective subjects were assured by the researcher of their right to withdraw from the study at any time and of data confidentiality.

Method of Data Collection

Verbal and written consent (see Appendix B) were obtained from each facility utilized in this study. Data collection occurred during a routine health care visit by the participants to the physician's office. Charts of clients who met criteria were identified by facility staff and reviewed by the researcher. After explaining the study, informing the prospective participant of their rights, and obtaining written consent (see Appendix C) for participation, three questionnaires were administered in an office area set aside for privacy. The data collection procedure was explained, and the researcher remained available to answer any questions. Subjects required approximately 20 minutes to complete the questionnaires.

Instrumentation

Three instruments were used to collect the data: the Personal Information Checklist, the revised Jalowiec Coping Scale, and the Health Locus of Control (HLOC).

The Personal Information Checklist was designed by the researcher to obtain descriptive data such as age, income, educational level, marital status, employment status, health insurance, and length of illness. Subjects used a check mark to indicate responses (see Appendix D).

The Jalowiec Coping Scale (JCS) is a 60-item questionnaire that is divided into eight subscales of coping strategies. These eight subscales are defined by Jalowiec as: (a) confrontive (confront the situation, face up to the problem, constructive problem solving), (b) evasive (evasive and avoidant activities, (c) optimistic (positive thinking, positive outlook, positive comparisons), (d) fatalistic (pessimism, hopelessness, feeling little control over the situation), (e) emotive (expressing and releasing emotions, ventilating feelings), (f) palliative (trying to reduce or control distress by making the person feel better), (g) supportant (using support systems, e.g., personal, professional, spiritual), and (h) self-reliant (depending on self rather than others). The scale rates the frequency each coping strategy is used (Part A) and perceived effectiveness of each coping strategy used (Part B) for the eight coping subscales.

In Part A the subject rated how often each strategy was used to cope with a specified situation (e.g., chronic hypertension), with 0 being "never used," 1 being "seldom used," 2 being "fairly often used," and 3 being "very often used." In Part B, the subject rates how effective each strategy used has been in coping with the situation on a 4-point Likert scale with 0 being "not helpful," 1 being "slightly helpful," 2 being "fairly helpful," and 3 being "very helpful." Each subscale contains a different number of questions and possible scores. The numbers circled in each subscale by the participant are summed. The higher the score for the subscale the more often the strategy is used (Part A) and the more its effectiveness (Part B).

The JCS has an established validity as it has been employed in numerous studies (Gurklis & Menke, 1988; Jalowiec & Powers, 1980; Powers & Jalowiec, 1987). The revised JCS (Jalowiec & Grady, 1989) has been tested by time-sequence study for cardiac transplant patients ($\underline{N}$ = 7, $\underline{N}$ = 35). The alpha reliability for total use score (Part A) ranged from .88 to .92, and the alpha for total effectiveness (Part B) ranged from .81 to .83. In Herth's (1989) study of elderly widows and widowers' coping process ($\underline{N}$ = 75), the revised JCS was used and revealed alpha reliability of .64 for total use and .85 for total effectiveness score.

Although the revised JCS has not been used in the study of hypertension, it is assumed to have the same level of validity in this study. Prior to revision, the original JCS was found to be valid in studies of hypertension (Jalowiec, 1979; Jalowiec & Powers, 1981; Powers & Jalowiec, 1987).

The Health Locus of Control Scale (HLOCS) was a revision developed by Wallston et al. (1978). The original tool developed by Wallston et al. (1976) was based on the health locus of control conceptualized by Rotter (1954) as a social learning construct. This construct represented a continuum of internality and externality in which belief in the efficacy of one's own actions was internal and expectation that outside forces determined one's fate was external. Jordan-Marsh and Neutra (1985) advocated the construct health locus of control as showing promise in predicting and explaining specific health related behaviors. Alpha reliability for the revised HLOC subscales range from .83 to .85 (Wallston et al., 1978).

The HLOC is an 18-item scale that asks the subject to rate statements on a Likert scale from 1 to 6, with 1 being "strongly disagree," 2 being "slightly disagree," 3 being "moderately disagree," 4 being "slightly agree," 5 being "moderately agree," and 6 being "strongly agree." The 18 statements are divided into three equal subscales: internal (belief in the ability or power of one's own action), chance (belief that that one does not have any control over what

happens to them, life events depend on luck), and external (forces outside one's self determines one's fate, life's happenings are under the power of others). The circled numbers are totaled. The lower the score, the less the subscale is used and the higher the score the more the subscale is used. The range of possible scores for each subscale is 6 to 36.

Data Analysis

Descriptive analysis was applied to the demographic data to establish a numerical mean for age, marital status, length of illness, and other descriptive data of the sample. Correlational statistics were used to analyze the data from the subscales of both the revised JCS and the HLOC to examine the relationship between coping strategies use and effectiveness and health locus of control. The Pearson product moment correlation was the statistic of choice. The Pearson r is a parametric statistic that determines the extent to which values of one variable are related to values of another variable (Wilson, 1989).

Chapter IV

The Findings

The purpose of this descriptive correlational study was twofold: to describe the coping strategies used and their perceived effectiveness in women with chronic hypertension and to examine the relationship between coping strategies and health locus of control in women with chronic hypertension. Data were collected using three instruments: the Personal Information Checklist to describe the sample, the revised Jalowiec Coping Scale to examine use and effectiveness of coping strategies, and the Health Locus of Control Scale to determine the subjects' health locus of control. This chapter delineates the sample and results of data analysis.

Description of Sample

The sample for this study included women who were primarily white, middle-aged, and middle class. The subjects (N = 20) included women between the ages of 35 to 65 years with a mean age of 50.5 who were married (75%), widowed, or divorced (25%). Ten percent of the sample were black, while 90% were white. The educational range was from

8 to 15 years with a mean of 11.5 years. Thirty percent of the subjects lived alone. The majority (65%) of the women were employed, while 10% were unemployed and 25% were retired. The range for number of years subjects was diagnosed as having hypertension was from 2 to 30 years, with a mean of 12.75 years. The annual mean income for the sample was $17,000. Ninety-five percent of the subjects indicated they had health insurance coverage.

Data Analysis

The research questions were analyzed using descriptive analysis. Question 1 was "What are the coping strategies used by women with chronic hypertension? and Question 2 was "What is the perceived effectiveness of the coping strategies in women with chronic hypertension?" These variables were operationalized as the eight coping styles identified by the Jalowiec Coping Scale (JCS) (Jalowiec, 1987), including confrontive, evasive, optimistic, fatalistic, emotive, palliative, supportant, and self-reliant. Descriptive analysis using means and standard deviations were computed to determine coping strategy use and effectiveness. The range of scores was from 0 to 3, thus the nearer the mean was to 3 the more often the coping strategy was used, and the more effective the coping strategy was perceived to be. Data for each coping strategy are presented in Table 1.

Table 1

Coping Strategy Use and Effectiveness by Women with Chronic Hypertension Using Means and Standard Deviations

Variable	M	SD
Confrontive		
Use	1.84	.59
Effectiveness	1.64	.58
Evasive		
Use	1.38	.64
Effectiveness	1.12	.59
Optimistic[a]		
Use	2.14	.49
Effectiveness	1.94	.53
Fatalistic		
Use	1.29	.68
Effectiveness	.92	.53
Emotive		
Use	1.13	.72
Effectiveness	.85	.89
Palliative		
Use	1.56	.43
Effectiveness	1.58	.52
Supportant		
Use	1.65	.77
Effectiveness	1.76	.72
Self-Reliant[b]		
Use	1.95	.55
Effectiveness	1.66	.61

[a]Most used/perceived effecive. [b]Least used/perceived effective.

The optimistic coping strategy was used most and perceived to be the most effective by the subjects. The optimistic coping style included items, such as tried to keep a sense of humor, thought about the good things in life, and tried to think positively.

The next most used coping strategy was the self-reliant coping style. This subscale included items, such as tried to keep feelings under control, preferred to work things out for yourself, and told yourself you could handle anything no matter how hard. However, this coping style was not perceived as effective as the supportant coping style, which included items that identified the use of support from family, friends, or significant others.

The coping strategy the subjects used the least and perceived to be the least effective was the emotive coping style. This subscale listed such items as worried about the problem, got mad and let off steam, and took out your tension on someone else.

The coping strategy indicated to be the next least used and least effective was the fatalistic. This subscale included items such as prepared for the worst that could happen, resigned yourself to the situation because things looked hopeless, and accepted the situation because little could be done.

The third research question, "Is there a correlation between coping strategy, use and effectiveness, and health

locus of control?" was analyzed using the Pearson product moment correlation. The variables of health locus of control were operationalized in this study by scores on the Health Locus of Control Scale (HLOC) (Wallston et al., 1978). The HLOC consists of three subscales: internal health locus of control (IHLC), chance health locus of control (CHLC), and powerful others health locus of control (PHLC).

Two significant correlations emerged. A negative correlation, $r(20) = -.38$, $p = .045$, was found between the use of confrontive coping strategy and CHLC, indicating that as use of confrontive coping strategy, coping strategies decreased the chance locus of control increased. A second significant correlation, $r(20) = .48$, $p = .016$, was found between the perceived effectiveness of evasive coping strategies and PHLC, as the perceived effectiveness of evasive coping strategies increased the powerful other locus of control (PHLC) increased. No other significant correlations were revealed (see Table 2).

Limitations

The limitations identified in this study include:

1. The sample was nonrandomized and small, thus preventing generalizability of the findings.

2. The chronic health problem was hypertension preventing generalizing findings to other chronic health problems.

Table 2

Pearson Correlation Coefficients of Coping Strategies and the IHLC, CHLC, and PHLC in Women with Chronic Hypertension

Coping Strategy	IHLC[a] r	CHLC[b] r	PHLC[c] r
Confrontive			
Use	-.13	-.39*	.11
Effectiveness	-.17	-.35	.10
Evasive			
Use	.07	.11	.17
Effectiveness	-.06	.06	.48*
Optimistic			
Use	-.12	-.18	.31
Effectiveness	.03	-.16	.27
Fatalistic			
Use	-.23	.04	.05
Effectiveness	.08	-.01	.35
Emotive			
Use	-.08	-.24	-.21
Effectiveness	-.03	.26	.28
Palliative			
Use	-.06	-.11	.22
Effectiveness	-.22	-.13	.28
Supportant			
Use	-.27	-.18	.18
Effectiveness	-.21	-.07	.15
Self Reliant			
Use	-.35	-.36	.04
Effectiveness	-.04	-.19	.18

[a]IHLC = Internal Health Locus of Control. [b]CHLC = Chance Health Locus of Control. [c]PHLC = Powerful Others Health Locus of Control.

*$p < .05$.

Summary

The questions for this descriptive study were:

1. What are the coping strategies most frequently used by women with chronic hypertension?

2. What coping strategies are perceived as most effective by women with chronic hypertension?

3. What is the correlation of coping strategies used and effectiveness to the health locus of control in women with chronic hypertension?

The order of the three most used coping strategies were: (a) optimistic, (b) self-reliant, and (c) confrontive. The three coping strategies perceived as most effective in managing chronic hypertension by the subjects were: (a) optimistic, (b) supportant, and (c) self-reliant. No significant correlations for coping strategies and health locus of control emerged except for the use of confrontive coping strategy and the subscale of Chance Health Locus of Control and perceived effectiveness of the evasive strategy and the subscale of Powerful Others Health Locus of Control.

Chapter V

The Outcomes

This descriptive correlational study sought to describe the coping strategies used, the perceived effectiveness of these strategies, and their correlation to the health locus of control in women with chronic hypertension. Roy's Adaptation Model was used as the theoretical framework for the study. Three research questions were answered: What are the coping strategies used by women with chronic hypertension? What are the coping strategies perceived as most effective by women with chronic hypertension? Is there a correlation between coping strategy, use, and effectiveness and health locus of control in women with chronic hypertension?

The population for this study was women between the age of 35 to 65 years who had been diagnosed and treated for hypertension for at least one year. A convenience sample of 20 women was selected from health care facilities in a rural community in Northeast Mississippi. The sample included women who were primarily white, middle-aged, and middle class.

The Jalowiec Coping Scale (JCS), Health Locus of Control Scale (HLOC), and the Personal Information Checklist

were used to collect data for this study. Data were analyzed using descriptive statistics and the Pearson product moment correlation statistic.

Findings indicated that the coping strategies most used, in rank order, were the optimistic strategy, self-reliant strategy, and confrontive strategy. Those coping strategies perceived by the subjects to be most effective in the adaptation process were, in rank order: optimistic strategy, supportant strategy, and self-reliant strategy. The correlational analysis of coping strategies, use, and their effectiveness, and HLOC revealed two significant correlations. One significant correlation emerged between the subscale of confrontive coping strategy and chance health locus of control (CHLC), and another was found between evasive coping strategy use and powerful other health locus of control (PHLC).

Discussion, Conclusion, and Implications

Discussion, conclusion, and implications of the findings for coping strategies, use, and effectiveness and coping strategies and health locus of control are considered in the following section. Recommendations for future studies also are suggested.

Coping strategies, use, and effectiveness. All coping strategies identified on the JCS were used and perceived effective at varying levels. This finding is supported by Dunkel-Schetter et al. (1987) in which coping strategies

were found to vary with the situation. In addition, Folkman, Lazarus, Dunkel-Schetter, DeLongis, and Gruen (1986) also noted similar findings. These researchers concluded from their studies that the forms of coping used vary depending on what is at stake and the options available for coping. Samples included primarily male patients with multiple chronic illnesses which may account for the variance in coping strategies. However, this current study also found that coping strategies vary even when the sample was restricted to one chronic illness and only female subjects. Burckhardt (1987) offered another explanation for the broad use of different coping strategies and their perceived effectiveness. He described the coping process as being a developmental process in which use of new coping strategies develop across the life span.

The conclusions drawn from these findings are that the adaptation process involves a multifaceted process and is impacted by both internal and external factors. This finding is further supported on the basis of Roy's (1984) Adaptation Model and the proposition of the four adaptive modes: physiological, self-concept, role, and interdependence. The mode in which stressors are exerting the greatest threat and the most immediate danger would determine the type of coping strategy used. For example, if the greatest threat was to the physiological mode, a coping strategy would be employed to support the physical aspect of

the person and not necessarily one that would promote the self-concept or role modes.

Based on this supposition, nurses should assess which mode of the person's system is being threatened in order to recognize and guide the person in using the most effective coping strategy. For example, if the client's basic physiological system is in immediate danger, it would be inappropriate to ignore the physical needs that promote survival and stress those that are basically for support of self-esteem.

A good client-health caregiver personal relationship must be developed to foster open communication. This relationship may provide the opportunity for caregivers to evaluate the client's changing needs and the appropriate time to guide the client in seeking other coping strategies that promote effective adaptation. Effective adaptation, as described by Roy (1984), includes variables that promote survival, growth, reproduction, and mastery.

Coping strategies and health locus of control. Analysis using the Pearson product moment correlation of health locus of control and coping strategy, use, and effectiveness revealed only two areas of significance. The inverse correlation (r = -.39) between the chance locus of control (CHLC) and the confrontive coping strategy indicates that as the subjects decreased their control in managing their health, they increased dependence on chance or luck

that their health would improve. Chance locus of control is in the realm of control external to the person. Findings from work by Lowery and Jacobsen (1985) revealed that individuals attribute success to internal control and failure to external control.

Additionally, a moderately positive correlation (r = .35) emerged between the perceived effectiveness of evasive coping strategies and the powerful other locus of control (PHLC). This finding indicates that as perceived effectiveness of evasive coping strategies increased, the locus of control rested more in powerful others; i.e., as clients chose to be evasive in coping with their health problems, their control was shifted to powerful others, such as nurses, physicians, or significant others. The client who does not feel in control of his/her health depends on ineffective mechanisms in managing health problems which leads to potential ineffective adaptation (Roy, 1984). This style of coping puts the client at risk for exacerbation of his/her illness and increases the health risk.

The choice of evasive coping strategies is not consistent with effective adaptation based on findings by Powers and Jalowiec (1987) which stated that effective adaptation was consistent in those who believed their health was under their own control. Roy (1984) described effective adaptation as a positive feedback, or the management of stressors by the person that leads to a decrease in levels

of stress. If the person chooses to evade dealing with their health problems, the stress levels continue to increase leading to ineffective adaptation.

Management of an individual's health care problems requires the collaboration of the clients and the health care provider to promote the highest potential for adaptation. When the client is evasive and does not confront the issues, his illness an important link in the adaptation process is missing.

These findings have significant implications for the health care provider in identifying those clients who are using external health locus of control and need to promote those health care behaviors that incorporate the client's internal locus of control. Powers and Jalowiec (1987) found that subjects who rated their quality of life more highly believed their health was under their own control. A higher quality of life for the client is a basic goal of the health care professional.

Implications for nursing are that collaborative efforts between the client and the health care giver need to be established to develop health care behaviors that promote progressive levels of responsibility and assist the client in gaining an internal locus of control. These efforts may elevate the client's self-esteem and perception of a higher quality of life.

Recommendations

Recommendations for further studies include:

1. Replication of the study using a larger randomized sample.

2. Replication of the study using subjects with other chronic illnesses.

3. Implementation of a longitudinal study to determine the impact of developmental stages on type of coping strategies.

References

Andrews, H., & Roy, C. (1986). Essentials of the Roy Adaptation Model. Norwalk, CT: Appleton-Century-Crofts.

Black, R., Dorman, D., & Allegrante, J. (1986). Challenges in developing health promotion services for the chronically ill. Social Work, 31, 287-293.

Bulman, R., & Wortman, C. (1978). Attribution of blame and coping in the "real world": Severe accident victims react to their lot. Journal of Personality and Social Behavior, 35(5), 351-363.

Burckhardt, C. (1987). Coping strategies of the chronically ill. Nursing Clinics of North America, 22(3), 543-549.

Connor, S. F., D'Andrea, K. G., Piper, J. A., Shaugnessy, M. E., Tonelli, M. S., & Viner, H. F. (1989). A comprehensive review manual for the adult nurse practitioner (2nd ed.). Glenview , IL: Scotts, Foresman/Little Brown College Division.

Corinth Chamber of Commerce. (1988). Corinth & Alcorn County--Information pamphlet. Corinth, MS: author.

Dunkel-Schetter, C., Folkman, S., & Lazarus, R. (1987). Correlates of social support receipt. Journal of Personality & Social Psychology, 53(1), 71-80.

Folkman, S., & Lazarus, R. (1986). Stress processes and depressive symptomatology. Journal of Abnormal Psychology, 95(2), 107-113.

Folkman, S., Lazarus, R., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. Journal of Personality & Social Psychology, 50(5), 992-1003.

Folkman, S., Lazarus, R., Gruen, R., & DeLongis, A. (1986). Appraisal, coping, health status, and psychological symptoms. Journal of Personality and Social Psychology, 50(3), 571-579.

Gurklis, J., & Menke, E. (1988). Identification of stressors and use of coping methods in chronic hemodialysis patients. Nursing Research, 37, 236-248.

Herth, K. (1989). The relationship between level of hope and level of coping response and other variables in patients with cancer. Oncology Nursing Forum, 16(1), 67-72.

Holmes, T., & Rahe, R. (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-218.

Jalowiec, A. (1979). Stress and coping in hypertensive and emergency room patients. Unpublished master's thesis, University of Illinois at Chicago.

Jalowiec, A. (1987). The Revised Jalowiec Coping Scale.

Maywood, IL: Author.

Jalowiec, A., & Grady, C. (1989). Cardiac transplant patients: Styles and effectiveness of coping. A paper presented at the Midwest Nursing Research Conference, Cincinnati, OH.

Jalowiec, A., & Powers, J. (1980). Stress and coping in hypertensive and emergency room patients. Unpublished master's thesis, University of Illinois at Chicago.

Jordan-Marsh, M., & Neutra, R. (1985). Relationship of health locus of control to lifestyle change programs. Research in Nursing Health, 8, 3-11.

Knowles, J. H. (1977). The responsibility of the individual. In J. H. Knowles (Ed.), Doing better and feeling worse (pp. 57-80). New York: W. W. Norton & Company.

Kobasa, S. C. (1982). Commitment and coping in stress-resistance among lawyers. Journal of Personality and Social Psychology, 42, 707-711.

Kobasa, S. C., Maddi, S., & Courington, S. (1981). Personality and constitution as mediators in the stress-illness relationship. Journal of Health and Social Behavior, 22, 368-378.

Konfer, F. (1980). Self-management methods: Helping people change. New York: Pergomom.

Lazarus, R. (1966). Psychological stress and the coping process. New York: McGraw-Hill.

Lazarus, R., DeLongis, A., Folkman, S., & Gruen, R. (1985). Stress and adaptational outcomes: The problem of confounded measures. American Psychologist, 40(7), 770-779.

Lazarus, R., & Folkman, S. (1980). An analysis of coping in a middle-aged community sample. Journal of Health and Social Behavior, 21, 219-239.

Lazarus, R., & Folkman, S. (1989). Stress, appraisal, and coping. New York: Springer.

Lazarus, R., Gruen, R., & DeLongis, A. (1986). Appraisal, coping, health status, and psychological symptoms. Journal of Personality and Social Psychology, 50(3), 571-579.

Lowery, B., & Jacobsen, B. (1985). Attributional analysis of chronic illness outcomes. Nursing Research, 34, 82-88.

Marriner, A. (1986). Nursing theorists and their works. St. Louis: C. V. Mosby.

Mississippi State Department of Health. (1988). Vital statistics Mississippi. Jackson, MS: Bureau of Information Resources.

Mistraz, J. E. (1984). Hospitals redefine their business. Hospital, 58(3), 71-74.

Moos, R., & Tsu, V. (1977). The crisis of physical illness: An overview. New York: Plenum Press.

Nowicki, S., & Strickland, B. (1983). A locus of control scale for children. Journal of Counseling for Children, 40(1), 148-154.

Pollock, S. (1985). Human response to chronic illness: Psychological and psychosocial adaptation. Nursing Research, 35, 90-95.

Pollock, S. E. (1986). Human responses to chronic illness: Physiologic and psychosocial adaptation. Nursing Research, 35, 90-95.

Pollock, S. (1989). Adaptive responses to diabetes mellitus. Western Journal of Nursing Research, 18, 351-359.

Powers, M., & Jalowiec, A. (1987). Profile of the well-controlled, well adjusted hypertensive patient. Nursing Research, 36, 106-110.

Rahe, R., Lundberg, U., Theorell, T., & Bennett, L. (1971). The social readjustment scale: A comprehensive study of Swedes in America. Journal of Psychomatic Research, 51, 241-249.

Rotter, J. (1954). Social learning and clinical psychology. New York: Prentice-Hall.

Rotter, J., & Phares, E. (1972). Application of a social learning theory. New York: Holt, Rinehart & Winston.

Roy, C. (1984). Introduction to nursing: An adaptation model (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Strauss, A., & Fagerhaugh, S., Suczek, B., & Weiner, C. (1981). Patient work in the technological hospital. Nursing Outlook, 29, 404-412.

Tiedeman, M. E. (1989). The Roy Adaptation Model. In J. Fitzpatrick & A. Whall (Eds.), Conceptual models of nursing: Analysis and application (pp. 105-282). Norwalk, CT: Appleton-Lang.

United States National High Blood Pressure Coordinating Committee. (1978). In K. G. Adreoli (Ed.), Self-concept and health beliefs in compliant and noncompliant hypertensive patients (pp. 323-327). Nursing Research, 30.

Wallston, K., Wallston, B., & DeVellis, R. (1978). Developing of the multidimensional health locus of control scales. Health Education Monographs, 6, 161-170.

Wallston, B., Wallston, K., Kaplan, G., & Maides, S. (1976). Development and validation of the health locus of control scale. Journal of Consulting and Clinical Psychology, 44(4), 580-585.

Weiner, B. (1974). Cognitive views of human motivation. New York: Academic Press.

Weiner, H. (1977). Psychology and human disease. New York: Elsevier.

Weiner, B. (1979). Theory of motivation for some classroom experiences. Journal of Educational Psychology, 71, 52-68.

Weiner, B., Frieze, I., Kukla, A., Reed, L., Rest, S., & Rosenbaum, R. (1971). Perceiving the causes of success and failure. New York: General Learning Press.

Wilson, H. S. (1989). Research in nursing (2nd ed.). Redwood City, CA: Addison-Wesley.

APPENDIX A

APPROVAL OF COMMITTEE ON USE OF HUMAN SUBJECTS IN EXPERIMENTATION

MISSISSIPPI UNIVERSITY FOR WOMEN
Columbus, MS 39701

Office of the Provost
P.O. Box W-1603
(601) 329-7142

April 24, 1990

Ms. Mary Ledford
Division of Nursing
Campus

Dear Ms. Ledford:

The Committee for Use of Human Subjects in Experimentation has recommended approval of your research proposal "Coping Strategies, Use and Effectiveness and Health Laws of Control in Women with Hypertension," and I am happy to approve their recommendation.

Sincerely,

Dorothy Burdeshaw

Dorothy Burdeshaw
Interim Vice President
for Academic Affairs

DB:wr

cc: Mrs. Mary Pat Curtis

APPENDIX B

HEALTH CARE FACILITY CONSENT FORM

Health Care Facility Consent Form

In the interest of improved health care for the chronic hypertensive patient, I give permission for patients under my care who agree to participate to take part in a research study on the factors that influence adaptation to chronic hypertension. I agree that the researcher may utilize my facilities to administer a questionnaire that will require approximately 20 minutes to complete by the participant. Medical records will be reviewed to determine that a participant meets the criteria for participation.

Date:_____ Signed:_____

APPENDIX C

PARTICIPANT CONSENT FORM

Participant Consent Form

I give my permission to take part in a research study on the coping strategies and their effectiveness as related to health locus of control in chronic hypertension. The purpose and potential benefits for health care of the chronic hypertensive have been explained to me by the researcher, Mary A. Ledford, who is a graduate student at Mississippi University for Women School of Nursing.

It has been explained that my acceptance to participate includes a review of my medical records and answering a questionnaire that requires approximately 20 minutes.

It has been explained that I may refuse to participate or withdraw from the study at any time. Also, that I will not be identified in any report of this study.

The plan for this study has been reviewed by the Committee on Use of Human Subjects in Experimentation at Mississippi University for Women in Columbus, Mississippi, and judged to be of no risk to any participant. There is no financial compensation for participating in this study.

Please feel free to ask any questions you have of the researcher. You may contact the researcher, Mary A. Ledford, at (601) 462-7880.

_____ _____

Date Signature of Participant

APPENDIX D

PERSONAL INFORMATION CHECKLIST

Personal Information Checklist

Instructions: Please place a check mark ( ) in the appropriate space.

1. What is your age group?
   _____ 35-45
   _____ 46-55
   _____ 56-65

2. What is your marital status?
   _____ Single (never married)
   _____ Married
   _____ Widowed/divorced

3. What is your racial background?
   _____ White
   _____ Black
   _____ Other

4. What is your sex? _____ Male _____ Female

5. How many years of education do you have?
   _____ (Please write in number of years)

6. Do you live alone? _____ Yes _____ No

7. What is your work status?
   _____ Employed
   _____ Unemployed
   _____ Retired
   _____ Disabled

8. How long have you been ill with hypertension?
   _____ (Please write in number of years)

9. What was your total family income last year?
   _____ Less than $5,000
   _____ Less than $10,000
   _____ Less than $15,000
   _____ Less than $20,000
   _____ Less than $30,000
   _____ Over $30,000

10. Do you have health insurance? _____ Yes _____ No